

WE CLAIM:

1. (currently amended) Inbred corn seed of the line designated G3601, representative seed of said line that has have been deposited in the ATCC under accession number X.
2. (currently amended) A corn plant and its parts, produced by the seed of Claim 1.
3. (original) A tissue culture of regenerable of G3601 of Claim 1 wherein the cells of the tissue culture regenerates plants capable of expressing the all of the physiological and morphological characteristics of G3601.
4. (currently amended) The tissue culture of regenerable cells according to Claim 3, the cells or protoplasts of said cells being selected from the group consisting of: leaves, pollen, embryos, roots, root tips, meristem, ovule, anthers, silk, flowers, kernels, ears, cobs, husks and stalks.
5. (original) A corn plant capable of expressing all of the physiological and morphological characteristics of G3601 regenerated from the cells of the tissue culture of Claim 3.
6. (cancelled!)
7. (cancelled)
8. (cancelled)
9. (cancelled)
10. (cancelled)

11. (cancelled)
12. (currently amended) The maize plant produced from the tissue culture of regenerable cells according to Claim 3 [2], wherein in the plant said regenerable cells are transformed with at least one transgenic-transgene gene at least one transgenic gene introduced into the plant by crossing with another plant which comprises at least one transgenic gene selected from a group of genes conferring: insect resistance, herbicide resistance, disease resistance upon said maize plant, wherein the transformed maize plant has at least one of such resistance.
13. (cancelled)
14. (cancelled)
15. (cancelled)
16. (cancelled)
17. (cancelled)
18. (currently amended) A method of ~~identifying the seed according to claim 1,~~ introducing a desired trait into corn inbred line G3601, the steps comprising:
 - (a) crossing G3601 plants grown from seed deposited under ATCC Accession No. X, with plants of another corn line that comprise a desired trait to produce F1 progeny plants, wherein the desired trait is selected from male sterility, herbicide resistance, insect resistance, altered starch and resistance to disease;
 - (b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) crossing the selected progeny plants with inbred G3601 plants to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and physiological and morphological characteristics of corn inbred plant G3601 to produce selected backcross progeny plants; and

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of corn inbred line G3601 listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

~~planting hybrid seed from a bag of hybrid seed comprising a trace amount of inbred seed according to claim 1, selecting plants from the planting that appear less robust than the other plants, self pollinating the selected plants and harvesting the resultant seed therefrom, identifying the resultant seed as being genetically the same seed as the seed on deposit according to claim 1.~~

19. (cancelled)

20. (currently amended) The pollen Pollen of the corn plant of claim 2.

21. (new) A corn plant and the seed produced thereon produced by the method of claim 18, wherein the plant comprises the desired trait and all of the physiological and morphological characteristics of a corn inbred plant G3601 listed in Table I when grown in the same environmental conditions at the 5% significance level.

22. (new) A method for producing an F1 hybrid corn seed, comprising crossing the plant of claim 2 with a different maize plant and harvesting the resultant F1 hybrid corn seed.

23. (new) An herbicide resistant corn plant produced by the method of claim 12.
24. (new) The corn plant of claim 23, wherein the transgene confers resistance to an herbicide selected from the group consisting of: imidazolinone, glyphosate, glufosinate, phosphinothricin.
25. (new) An insect resistant corn plant produced by the method of claim 12.
26. (new) The corn plant of claim 25, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.
27. (new) A disease resistant corn plant produced by the method of claim 12.
28. (new) Seed produced by selfing the plant according to claim 2, wherein said seed produce plants having all the physiological and morphological characteristics of a corn plant of the inbred line G3601, seed of said inbred line having been deposited under ATCC Accession No: X.
29. (new) A seed comprising a cell of the seed of claim one.
30. (new) An ovule of the seed of claim one.
31. (new) The method according to claim 18 wherein the desired trait of altered starch is selected from the group consisting of: sugary 1, shrunken 1, waxy, and (ae) amylose extender.